

## Division 1, 2, and 4 Review of Draft Framework Workshop for Environmental Management Plan

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**FROM:** CH2M HILL

**DATE:** November 22, 1:00 PM

Division 1, 2, 4, and Ferry employees met on November 22<sup>nd</sup> in the Division 2 conference room to review and discuss the draft Environmental Management Plan (EMP). The objectives of the meeting were to present the draft framework, obtain feedback from North Carolina Department of Transportation (DOT) Division and District staff, and identify the environmental activities already being performed. The draft EMP framework was reviewed with the entire group and then the attendees split into small groups to discuss each framework objective in detail. This memorandum summarizes the group discussions.

### Introductions and Meeting Objectives

Ehren Meister opened the meeting, introduced the CH2M HILL team, and provided a general summary of the meeting's objectives. J.D. Solomon with CH2M HILL introduced the CH2M HILL staff members and asked the DOT participants to introduce themselves. J.D. presented the goals for the Environmental Management Plan, noted that the purpose of the meeting is to obtain feedback from staff, and described how Division input will be used to develop the final EMP.

### Project Background

J.D. identified the EMP sponsors and the core team at DOT that helped to develop the EMP framework. The Framework is based upon existing DOT documents and additional information from benchmarked agencies that have excellent environmental management systems or programs. A few of the DOT documents were identified and a copy of the Environmental Stewardship Policy was provided to the meeting attendees. The

benchmarking agencies included other State Departments of Transportation, cities, and military facilities.

J.D. Solomon reviewed the main goals for the EMP:

- The EMP should be clear, concise, workable, realistic, and achievable for all levels of the organization.
- The EMP will provide a way to clearly document the cost effectiveness of investments made on environmental initiatives.
- The EMP will incorporate previous environmental initiatives where applicable.
- The EMP will include methods for communicating environmental performance measures to all levels so that employees recognize and understand what the Department is doing.
- Obtain broad acceptance of the EMP from the Board, employees, and the public.

The EMP framework was reviewed. The meeting participants were asked to think about the questions that they will be asked to answer in the small group sessions:

- What are you already doing that supports the EMP Framework?
- What are you doing that is missing from the EMP framework?
- What EMP objectives are not applicable to you?

After the objectives were presented, J.D. asked the group to identify anything missing and to share their initial thoughts about the framework. One meeting attendee asked why DOT needed an environmental management plan. Julie Hunkins replied that the EMP will document the environmental activities being completed throughout DOT and will provide a method for evaluating the cost effectiveness of ongoing environmental work. The EMP is being developed to assure compliance with the Environmental Stewardship Policy and environmental directives included in the DOT business plan.

## **Break**

### **Small Group Sessions**

After the break the meeting attendees were split into two groups. Each group reviewed the individual framework pieces and identified the activities they are doing under each section and any activities that don't fit under the framework pieces. The small group discussions were led by CH2M HILL staff. Group comments were recorded on flip charts. After each framework piece was reviewed, the groups came back together and CH2M HILL presented the highlights of the small group discussions.

#### **Objective A - Ensure employee compliance with the Environmental Stewardship Policy**

- 1) Achieve zero notice of violations (NOV) on projects, facilities, and operations

- 2) Conduct root cause analysis and develop recovery plans for correction of NOV occurrences
- 3) Build upon and enhance internal programs which demonstrate NCDOT's commitment to the natural and human environment

Current Activities:

- Coordinate with Agencies especially during project planning
- Established a good relationship with Agency representatives
- The compliance audit for immediate corrective actions (ICA) process has reduced the number of NOV's
- The Divisions document the ICA process
- The Ferry Division is developing an Environmental Management System (EMS)
- Inconsistencies within resource agencies (such as w/in ACOE) is a real problem
- All salt is stored under or in a structure
- During the design build phase Division 1 is adding financial incentives for the contractor to reduce impacts to wetlands (Example - Windsor Bypass Project)
- Division 1 has turned themselves in for every NOV they have received
- The ICA process should prevent NOV's and include documentation of incidents and contractor performance
- The Ferry division has changed the type of hydraulic oil used
- During pre-construction meetings for projects in environmentally sensitive areas, environmental issues are discussed, project and permit drawings are reviewed, and/or discuss whether a permit is needed
- The Division environmental officer (DEO) conducts compliance inspections and helps project staff identify what they can do and where
- There has been a noticeable decrease in complaint calls since the DEO's began conducting inspections
- The DEO is contacted by project staff prior to conducting site work if there are any environmental questions

Comments/Suggestions:

- Difficult to achieve no NOV's
- Does this objective focus only on DWQ NOV's?
- Is "zero NOV's" the best measure of stewardship?
- Is "employee" the right word or should it be Department/Division, the manager has some accountability
- How do you measure differences in environmental cultures between business areas within DOT such as the Ferry Division and Division of Highways?
- Need to address all violations that can be issued by agencies such as ACOE and DLR
- Sometimes the permitting language forces DOT into a violation position

- DOT's response to Agency requests is very important
- Share specific experiences between Divisions in order to prevent future NOV's
- ICAs should not be in the framework because this may limit inspectors in the documentation of incidents and contractor performance
- Increase the sharing of information between Divisions
- Need to publicize DOT's environmental activities, suggest implementing a public relations campaign with the public and regulatory agencies
- Share information on BMPs and environmental initiatives at construction conferences
- The Environmental Stewardship Policy is too vague to be the main environmental plan for DOT
- NOV's are stressed instead of compliance with environmental regulations
- A1 is not complete enough, or shouldn't be the first sub-objective
- Add education to objective A, rework the list
- Identify a process for rewarding Environmental Stewardship
- Make Objective A less negative
- Need more information sharing on ideas/activities like giving contractors financial incentives to minimize environmental impacts

**Objective B** - Ensure the compliance of NCDOT and industry partners with state and federal environmental laws, rules and regulations

- 1) Achieve zero NOV's on projects
- 2) Achieve zero contract violations related to or as result of adverse environmental impacts
- 3) Conduct root cause analysis and develop recovery plans for correction of NOV or contract violation occurrences

#### Current Activities

- Use erosion control measures to stop harmful contractor activities
- Share experiences and tools with other Divisions or Districts (this should be expanded)
- If an NOV is issued can make a contractor stop work and perform the corrective work free of charge
- Erosion and sediment control devices can be special order items
- Erosion control inspector is proactive instead of reactive

#### Comments/Suggestions

- Objectives A and B involve the same procedures
- To comply with both the Divisions need: education, commitment, and the message has to get down to the back hoe driver and the contractor
- Institutionalize an environmental ethic with the contractors too

- Implement environmental certification for contractors
- See what other states/organizations are doing to bring contractors into the “environmental” approach
- Document the number of people educated about the EMP including contractors
- Need a better mechanism for controlling contractor activities
- Should include a contract clause to pass any NOV fines or environmentally related fines on to the contractor (ex. mitigation fines for an illegal borrow pit)
- If a environmental certification procedure was developed, you could “pull” a contractor’s environmental certificate if they are not implementing projects correctly
- Include an environmental performance or compliance clause in contracts
- Include documentation of a contractor’s past environmental performance in the bid process (potentially a score)
- DOT safety procedures are the contractor’s responsibility, make environmental stewardship the contractor’s responsibility too

**Objective C** – Build upon and enhance environmental sustainability practices

- 1) Achieve government recycling mandates to reduce waste and reduce costs
- 2) Determine the technical feasibility and cost effectiveness of waste reduction measures
- 3) Evaluate and track additional reduction, recycling, and reuse efforts to continually improve environmental sustainability
- 4) Implement the Energy Policy

Current Activities

- Are implementing lots of common sense things like ride sharing
- Many waste reduction and recycling practices are in place (cardboard, metals, paper)
- Salvage guard rails and sell them for scrap metal
- Utilize recycled plastic in fence posts
- Utilize biodiesel and propane vehicles
- Ferry Division administration uses 2 alternate fuel vehicles
- Recycling cans and bottles in rest areas
- Shredded tires are used as embankment fill and in sidewall construction
- Increased fuel costs have caused maintenance to look for opportunities to reduce fuel usage and look for cost efficiencies
- Utilize hot-in-place asphalt (would use this process more frequently if large asphalt contractors were not inflating the liquid asphalt price)
- Evaluating the expansion of their biodiesel usage
- Increased the use of pervious pavements
- Use PCS reject materials for stabilization
- Moving away from onsite wastewater systems

### Comments/Suggestions

- Political pressure from large asphalt contractors inhibits the use of hot-in-place asphalt
- Could mandate the use of hot-in-place asphalt for a certain percentage of projects
- Explore wind and solar power options
- Increase use of greywater
- Documenting recycled product use is a hassle
- Don't know how to measure recycling efforts

### **Objective D** – Enhance air quality management

- 1) Identify and measure air quality impacts produced by NCDOT activities
- 2) Complete air quality analyses in non-attainment and maintenance areas on time
- 3) Maximize the use of available congestion mitigation and air quality improvement program (CMAQ) funds each year
- 4) Organize effective regional collaborations with metropolitan and rural planning organizations (MPO's and RPO's)

### Current Activities

- The Division Engineer attends quarterly MPO/RPO meetings
- Maintain and replace equipment to reduce emissions (are reviewing their procedures now)
- Increasing biodiesel usage to reduce emissions
- Promote carpooling
- Manage construction activities to reduce traffic slowing by not working on weekends or during rush hours
- Increased signal timing reduces air quality impacts (doing)
- Open burning no longer occurs

### Comments/Suggestions

- They are in a attainment area, so they do not receive any CMAQ funds
- CMAQ funds used for sidewalks results in slower traffic since the presence of pedestrians slows down traffic flow (this effectively results in higher emissions)

### **Objective E** - Enhance water quality management

- 1) Continue to implement enhancements and BMPs related to water quality at facilities and properties
- 2) Track enhancement and BMP implementation efforts at the project level

- 3) Identify and track opportunities to enhance water quality through partnerships
- 4) Cooperate with watershed based approaches where possible

#### Current Activities

- Conduct monthly and sometimes weekly erosion control inspections
- Document project inspection results after large rainfall events
- Comply with the Neuse and Tar Pamlico buffer rules
- Measuring tributary water quality conditions above and below project site to identify impacts (using automated devices and grab samples)
- Use BMPs like polyacrylamide to reduce turbidity
- Retrofit bioretention basins (2 so far)
- Bridges capture stormwater
- Utilize hydro demolition (keeps dust down) and utilize silt fences to keep debris out of water (this procedure is less expensive than traditional demolition methods and reduces demolition time)
- Re-use hydro demolition water
- Now place borrow pits 400' from waterways or wetlands
- Partner with water quality group to enhance drainage for improved septic tank performance
- Division 3 hired a consultant to inventory and assess the condition of BMPs
- Conducted River Basin signing program

#### Comments/Suggestions

- Why is there more emphasis on DOT for erosion and sediment control than on other agencies?
- The inconsistent application of rules across Agencies is frustrating
- Wish that local DWQ folks could handle major permits, not just minor permits
- Identify the positions funded by DOT in other agencies and share this with the Divisions
- Expect annual reports from DOT funded positions in other organizations that include qualitative and quantitative summaries
- Utilize the DOT funded positions in other agencies to provide assistance and problem solving to DOT
- DOT is often blamed for water quality problems that it did not create. For instance DOT is called by local municipalities to pump out flood waters from areas with failing septic systems or bad grading. The water is pumped to the ocean but has high fecal concentrations.
- The construction season is restricted by the new rule that protects inland nursery areas. The way this rule is implemented seems arbitrary. Compressing the construction schedule leads to increased project costs and project timeline.
- Have a good relationship with CAMA at the local level, but regional CAMA is very slow in issuing major project permits

- Usually relationships with local regulators are better than with Raleigh based regulators
- DWQ is more responsive to DOT since the DOT funded positions, but staff turnover is a problem
- Would like additional training on how to maintain BMPs
- How can DOT evaluate the effectiveness of certain BMPs such as buffers?

#### **Objective F – Enhance land resource management**

- 1) Integrate local land use plans into the comprehensive transportation planning process to meet mobility, economic and environmental goals
- 2) Continue to manage facilities and property to enhance environmental stewardship and economical land management practices
- 3) Continue delegation of the erosion and sedimentation control and buffer programs

#### **Current Activities**

- Division 2 integrates access management and land use (Hwy 70 strategic corridor example) and wants acceptance from local governments
- Local governments are responsible for determining land use
- Onsite opportunities to reduce environmental impacts at facilities have been identified
- There are limited opportunities to make changes that add environmental benefit at DOT facilities
- Divisions have identified the location of BMPs by type in a web-based application
- Facilities have NPDES required stormwater pollution prevention plans and spill prevention plans

#### **Comments/Suggestions**

- Implement forest management or land management plans on large tracts of DOT land
- Sustainable forestry practices can provide DOT revenue
- Lease land to hunting clubs and use the proceeds for monitoring
- DOT should manage their properties or sell them
- Need to develop a system to dispose of state property differently, currently and outside entity comes to DOT to get things started
- EEP requires management plans for the land acquired by DOT for mitigation, place this land into conservation or donate it to land resources
- DOT is responsive to growth, but does not drive land use decisions
- DOT is not responsible for all secondary and cumulative impacts it is just responding to growth



- The presence of endangered species in habitat created by DOT roadsides can impede road expansion projects (quit mowing habitat to reduce endangered plant populations prior to expanding the road)
- Need to inventory properties, especially remnants

**Objective G** - Accelerate/streamline the environmental component of the project delivery process

- 1) Zero project delays due to permitting
- 2) Identify impacts, fund, and monitor the expense allocation to the EEP and other mitigation efforts
- 3) Identify appropriate mitigation funding sources and allocation of funds in TIP
- 4) Identify and track opportunities to partner with local governments and agencies to enhance the project delivery process
- 5) Explore delegation of environmental programs

Current Activities

- Develop relationships with local agency representatives
- The initiative with cultural resources to streamline project review is not working
- Resource agency review of projects increases project timelines because DOT has to wait for inspections and reports
- Legislation that impacts DOT budget related to Resource Agencies now goes before a committee to discuss
- DOT agrees to agency requests to keep projects moving, but needs to evaluate the cost/benefit of these requests, such as wildlife crossings

Comments/Suggestions

- When do you start the project timeline?
- The paper trail and number of people involved all increase project timelines
- Build agency confidence in DOT in order to work toward DOT management of additional programs besides sediment and erosion control
- The biggest project delays come from 401 permitting
- Would consider taking over 401/404 permits and CAMA permits
- Many local governments have been delegated authority for CAMA general permits (their review of permits is slow) and NCDOT should explore delegation
- CAMA takes 75 days to permit large projects
- Would like the local CAMA to manage large permits too to reduce the time for permit issuance
- CAMA has claimed too much jurisdiction over small waterbodies

- Agency review of the human environment of projects (architecture, archeological, historic) can create delays as long as a year
- The internal DOT cultural resource review process is too slow
- The notification of adjacent property owners during the CAMA process adds additional time to projects
- Quarterly reports under the EEP process allow projects to proceed without existing mitigation, this same process could be used with the ACOE (DEO would prepare reports)

**Objective H – Implement and maintain the initiatives, programs and process improvements**

- 1) Implement the Environmental Management Plan
- 2) Develop a comprehensive shared GIS database
- 3) Continue to enhance training and awareness of the environmental ethics of the Department
- 4) Develop a risk management plan

**Current Activities**

- DEO's frequently use GIS data, but the Division data layers are getting old
- Need State and Federal GIS layer updates

**Comments/Suggestions**

- Provide environmental stewardship training to transportation workers and lead worker
- Emphasize each individual's accountability
- Include field training
- Need better coordination of training schedules and content
- Training should include a video for an employee's 1<sup>st</sup> day on the job
- Include an environmental topic in monthly safety meetings
- Stewardship as "Topic of the Month"
- Provide environmental awareness training (1/2 day module for employees and a 1 day module for supervisors)
- Could combine environmental stewardship and erosion and sediment control training
- Include environmental stewardship in the supervisor training academy
- Include environmental review with monthly safety meetings
- DEO will give the environmental training, working from a basic training module
- Develop a smart growth policy for DOT
- Link project funds to smart growth implementation
- DOT is too slow in producing and distributing comprehensive transportation plans

- Develop a process to look at the cost and benefits of projects such as bridge replacement. The process should document implementation efforts and monitor or measure effectiveness.
- Increase cooperation with Universities to develop solutions for future problems
- Identify the project environmental objectives separately from permit objectives
- Annual instead of quarterly reporting

## Summary and Conclusions

This group suggested that one piece missing from the framework is minimizing environmental impact and avoiding impacts. It was not clear that the NOV's were the right items to include in the framework because it may not reflect the best measure of stewardship or compliance with all environmental regulations. DOT should address environmental considerations just like DOT addresses safety issues.

The Division staff would like the contractors to have the financial responsibility for NOV's. A consistent contract clause across the DOT that implements this was suggested. The group recommended pre-qualifying contractors based on environmental criteria or developing a contractor certification process.

There needs to be a simple method for documenting DOT's recycling and reuse activities. DOT should perform an inventory to find all the property it owns and should manage or sell the land.

The goal of zero project delays due to permitting is a function of when this timeline starts. Inconsistent interpretation of regulations by the Resource Agencies is a frustration for DOT staff. Explore the possibility of CAMA delegation. Develop a process to look at the cost and benefits of projects such as bridge replacements. The process should document implementation efforts and monitor or measure effectiveness. Increase cooperation with Universities to develop solutions for future problems.

## Next Steps

Further comments can be provided to Ehren Meister with DOT or to J.D. Solomon with CH2M HILL. Employees interested in keeping track of the EMP development process can go to the DOT internet site: <http://www.ncdot.org/environment/development/management/>. After the Division workshops are completed, the input from staff will be incorporated into the framework and EMP implementation strategies.